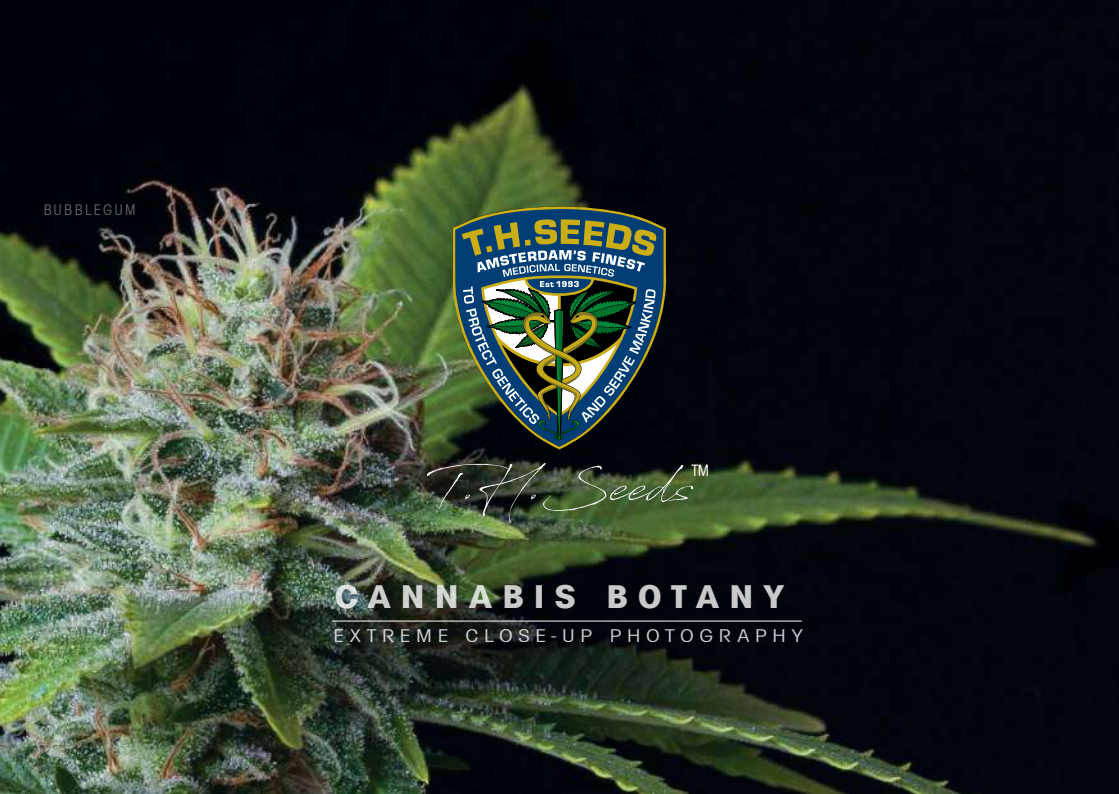
BUBBLEGUM
T.H.SEEDS
AMSTERDAM'S FINEST
MEDICINAL GENETICS
Est 1993
TO PROTECT GENETICS
AND SERVE MANKIND
T.H. Seeds™
CANNABIS BOTANY
EXTREME CLOSE-UP PHOTOGRAPHY

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T.H.Seeds™

CANNABIS BOTANY

Here at T.H.Seeds™ we are continuously fascinated by what could be nature's greatest miracle, the Cannabis plant. The world of extreme close - up photography presented itself as another, largely unexplored way to show its intricate details and mind blowing shapes and patterns.

All seeds by T.H.Seeds™

www.thseeds.com

IT ALL STARTS WITH A

S E E D

The hard mature seed is partially surrounded by the calyx and is variously patterned in grey, brown or black. Elongated and slightly compressed, it measures 2 to 6 millimeters in length and 2 to 4 millimeters in maximum diameter.

DARKSTAR™

2 to 6 millimiters in length

SEED TEXTURE

A seed is an undeveloped plant inside a protective outer layer. The growth of seeds in the female plant is part of the reproduction in seed plants. Seeds are formed in the ripened ovule, after fertilization by pollen.

DARKSTAR™

DARKSTAR™ - Seed texture 20X Zoom

LONGITUDINAL SECTION

A section that is cut along the long axis of a structure. Longitudinal section is the opposite of cross-section.

CROSS-SECTION

S.A.G.E.™ CBD

GERMINATION

Germination is the process in which the seeds sprout and the root appears. In cannabis it can take from 12 hours to 8 days. Warmth, darkness and moisture start metabolic processes that trigger the expansion of the embryo within the seed. Soon the seed outer coat cracks open and a small embryonic root emerges and begins growing downward.


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SEED SHELL

When the root cap emerges the seed outer coat cracks and it starts to grow. After 2-4 days the root is anchored and two circular embryonic leaves (cotyledons) emerge in search of light and the remains of the seed shell are pushed to the side. This is the beginning of the seedling stage.


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SEEDLING

A seedling is a young plant developing out of a plant embryo from a seed. Cotyledons are already present in the seed of the plant prior to germination and upon germination become the embryonic first leaves of a seedling. Above the cotyledons the first true leaves will arise, a pair of oppositely oriented single leaflets.

HEAVY DUTY FRUITY

CANNABIS LEAVES

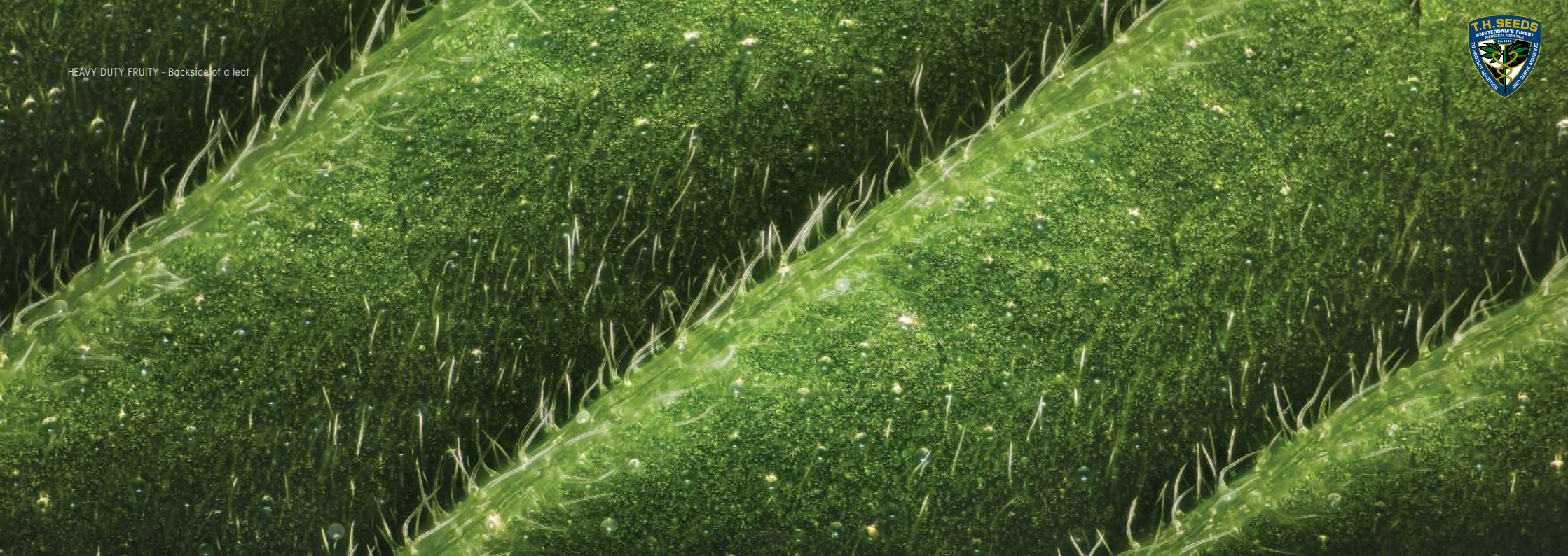
The leaves are palmately compound with serrate leaflets. Sativa leaves are long and slender, can have up to thirteen leaflets and tend to be lighter green. Indica leaves are wider and usually have around seven to nine leaflets and are usually a dark olive green.

Backside of a Leaf

Trichomes Development

Cut Leaf

HEAVY DUTY FRUITY

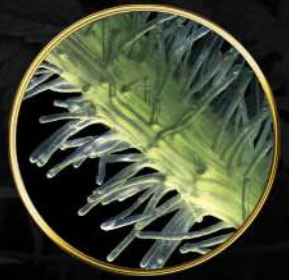

HEAVY DUTY FRUITY - Backside of a leaf

ROOTS

As the root initials divide, the groups of cells take on the appearance of a small root tip. A vascular system forms with the adjacent vascular bundles and the root continues to grow outward through the cortex until the tip emerges from the epidermis of the stem. Initination of root growth usually begins within a week and young roots appear within four weeks.

EARLY FLOWERING

In the early flowering phase the cannabis plant grows rapidly in size and height. This phase is also known as the stretch phase. In the second week of flowering the first white pistillate hairs (also called stigmas) will start appearing on the female cannabis plants. Later on, as the plant matures, the color of the pistillate hairs changes from white to yellow to orange to red and finally to brown. After about 3 weeks into the flowering phase, the stretching will slow down and soon stop completely as the plant starts to turn all its energy into developing flowers.



PISTILLATE HAIR

Tiny hair that grows from the pistil. Its purpose is to collect pollen from male plants so that seeds can form in an ovary contained in the pistil.

FLORAL MATURATION

As the flower begins to age and mature, the pistillate hairs grow longer and the calyx enlarges slightly to its full length. Next, the calyx begins to swell as resin secretion increases, and the pistils reach their peak of reproductive ripeness. Without pollination the calyx begins to swell almost as if it had been fertilized and resin secretion reaches a peak. The pistillate hairs eventually wither and turn a reddish or orange brown. By this time, the swollen calyx has accumulated an incredible layer of resin, but secretion has slowed and few fresh terpenes and cannabinoids are being produced.

TRICHOME RIPENESS

Clear Head

Cloudy Head

Amber Head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GLANDULAR TRICHOMES

Manufacturing and storing Phytocannabinoids. Trichomes are resin glands of the plant which contain THC, CBD and other active medicinal Cannabinoids. Terpenes are the pungent oils that give the cannabis plant its distinct tastes and smells. Terpenes also create an entourage of health benefits and help fully expose and express the plant's unique aromatic and euphoric character.

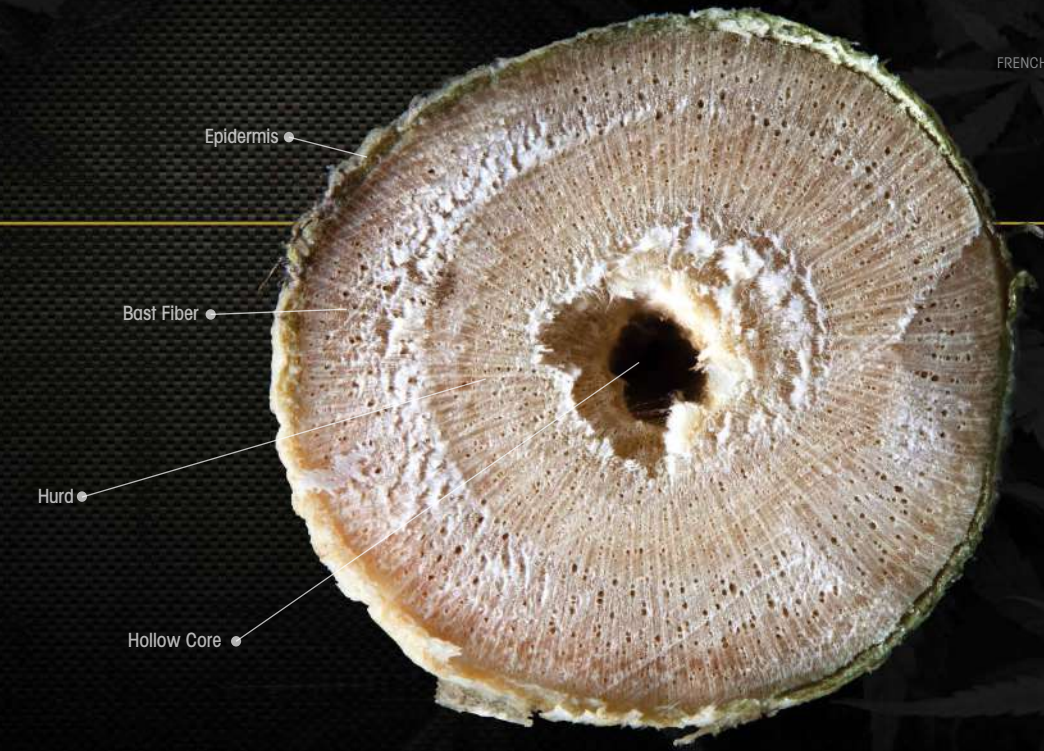
NON-GLANDULAR TRICHOMES

Are single-celled and occur on all plant parts except roots and root hairs. In appearance they are long, hollow, and clear; they taper to a sharp point, with the cytoplasm and nucleus restricted to the base.Trichomes also act as a deterrent to attacks by insects.

BUBBLEGUM

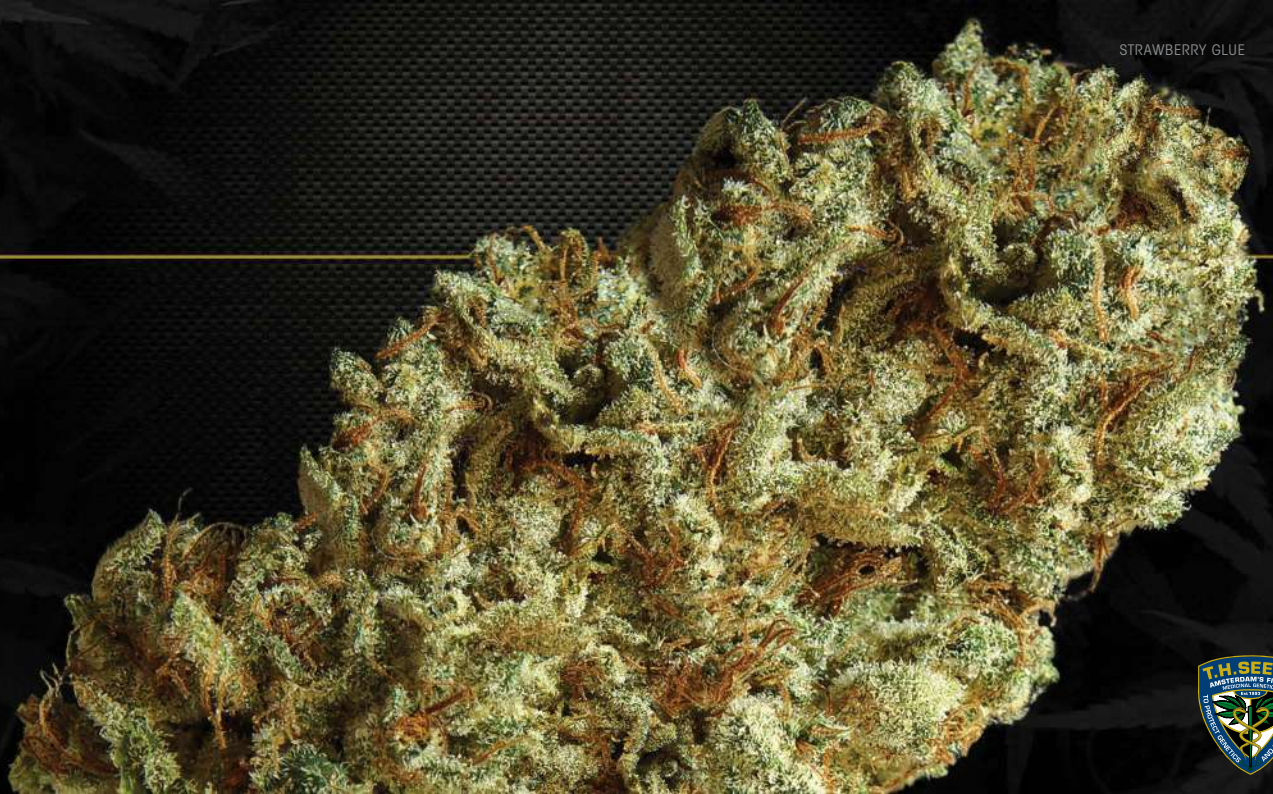
STALK CROSS SECTION

Cross section of the main stalk of a young cannabis plant showing fiber bundles.



DRY FLOWER

A floral cluster is not dead after harvest any more than an apple is. Certain metabolic activities take place for some time, much like the ripening and eventual spoiling of an apple after it is picked. During this period, cannabinoid acids decarboxylate into the psychoactive cannabinoids and terpenes isomerize to create new polyterpenes with tastes and aromas different from fresh floral clusters.



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and author of "Marijuana Botany"